Chapter 25 Injuries to the Face, Neck, and Eyes

Injuries to the Face and Neck
- Face and neck are _______________________ to injury
  - Relatively unprotected positions on body
- Some injuries are life-threatening.
  - _______________________ trauma to the neck may cause severe bleeding.
  - Open injury may result in an air embolism.
- With appropriate care, a patient with a seemingly devastating injury can have a surprisingly good _______________________.

Injuries to the Face
- Injuries about the face can lead to upper airway _______________________.
- Bleeding from the face can be profuse.
- Loosened teeth may _______________________ in the throat.
- If the great vessels are injured, significant _______________________ may occur.

Components of the Face
- _______________________
- Ears
- _______________________
- Mouth
- _______________________
- Jowls

6 Major Bones of the Face
- Nasal bone
- Two _______________________
Two maxillae

The Orbit of the Eye

The orbit of the eye is composed of:
- Lower edge of the frontal bone of the skull
- Maxilla
- Nasal bone
- Protects the _______________________ from injury

Structures of the Neck

- Neck contains many important structures
- Supported by the _______________________ spine
- The upper part of the esophagus and the trachea lie in the _______________________ of the neck.
- The carotid arteries are found on either side of the _______________________ .

The Larynx (1 of 2)

- Adam’s apple is located in the _______________________ of the neck.
- Other portion of the larynx is the _______________________ cartilage.

The Larynx (2 of 2)

- The _______________________ membrane lies between the thyroid cartilage and the cricoid cartilage.
- Soft _______________________ in the midline of the neck

Other Structures of the Neck

- The trachea
  - Below the larynx in the anterior midline of the neck
- Connects the oropharynx and _______________________ with the main passages of the lungs
- Sternocleidomastoid muscles
  - Originate from the _______________________ process
  - Allow movement of the head

11 **Anatomy of the Eye (1 of 4)**
- The design of the eye is a globe that is about 1” in diameter.
- _______________________ Humor: Jelly-like fluid behind the lens.
- Iris: Muscle that regulates the amount of light that enters the eye.
- _______________________ : Transparent tissue layer in front of the pupil and iris.

12 **Anatomy of the Eye (2 of 4)**
- _______________________ : Circular opening in the center of the iris.
- Sclera: White portion of the eye.
- _______________________ : Lines eyelids, covers exposed surface of the eye (membrane tissue).
- Eyelid: Skin covering eye, holds lashes.
- _______________________ Glands: Produces tears to lubricate and protect eyes.

13 **Anatomy of the Eye (3 of 4)**

14 **Anatomy of the Eye (4 of 4)**
- The conjunctiva is a _______________________ that covers the eye.
- The _________________________ glands produce fluid to
keep the eye moist.

15  **Appearance of Eye**

- In a normal, uninjured eye, the entire circle of the iris should be visible.
- ____________________ should be round, equal in size, react equally when exposed to light.
- Both eyes should move in same ____________________ when following a finger.
- Always note patient’s signs and symptoms including severity and ____________________.

16  **The Eye as a Vital Sign**

Pupils can be:

- ____________________
- Constricted
- Equal
- ____________________
- Fixed
- ____________________

17  **Normal Pupils**

Normal eyes are ____________________

- Pupils
- ____________________
- And
- Round
- Reactive
- To ____________________

18  **Injuries of the Face and Neck**

- ____________________ obstruction is always a major concern with face and neck injuries
- Face is very vascular which causes major bleeding
Blood clots easily form
- ________________ can be broken or dislodged
- ________________ can obstruct airway
- Cervical spine injury is a major concern

**Soft-Tissue Injuries**
- Soft-tissue injuries to the face and scalp are ________________.
- Wounds to the face and scalp bleed ________________.
- A blunt injury may lead to a hematoma.
- Sometimes a ________________ of skin is peeled back from the underlying muscle.

**Facial Injury**

**Hematoma**
- Blunt injury that does not break the skin may cause a ________________ in a blood vessel wall.

**Dental Injuries**
- ________________ injuries are common.
- Most of these injuries are the result of vehicle collisions and assaults.
- ________________ fractures are usually found after blunt force high-energy impacts.
- Fractured and avulsed ________________ are common following facial trauma.

**Care of Soft-Tissue Injuries (1 of 3)**
- Assess the ________________ and care for life-threatening injuries.
- Follow proper BSI precautions.
• Blood draining into the throat can lead to vomiting. Monitor _______________________ constantly.
• Take appropriate precautions if you suspect a _______________________ injury.

25 Care of Soft-Tissue Injuries (2 of 3)
• Control bleeding by applying direct _______________________ .

26 Care of Soft-Tissue Injuries (3 of 3)
• Injuries around the _______________________ may obstruct the airway.
• Be prepared to _______________________ .

27 Eye Injuries
• Can produce severe _______________________ .
• Examine _______________________ for shape and reaction.

28 Foreign Objects in the Eye (1 of 2)
• For small foreign objects lying on the surface of the eye, irrigate with _______________________ .
• Flush from the nose _______________________ .

29 Foreign Objects in the Eye (2 of 2)
• To examine the underside of the eyelid, pull the lid upward and forward.
• Never attempt to remove an object on the _______________________ .
• Gently remove the foreign object from the eyelid with a moistened, _______________________ applicator.

30 Foreign Object in Eye

31 Impaled Objects in the Eye (1 of 4)
• If there is an object impaled in the eye, do not
● Immobilize the object in place.
● Prepare a _______________________ ring by wrapping a 2” piece of gauze around your fingers and thumb.

32 Impaled Objects in the Eye (2 of 4)
● Remove the gauze from your hand and wrap remainder of ________________ around ring.
● Carefully place the ring over the eye and impaled object, without _______________________ the object.

33 Impaled Objects in the Eye (3 of 4)
● An alternative method is to use a ________________ to stabilize the object
● If object is longer than cup, carefully cut a ________________ in the bottom of the cup
● Use 4 X 4’s inside cup
● Place cup over object
● _______________________ with roller gauze

34 Impaled Objects in the Eye (3 of 3)
● Stabilize the object with ________________ gauze.
● Cover the injured and uninjured eye.
● Do not apply _______________________ to eye

35 Impaled Object in the Eye

36 Chemical Burns of the Eye
● ________________ , heat, and light rays can burn the eye.
● For chemicals, flush the eye with saline solution or clean water.
● You may have to _______________________ the eye open to get enough irrigation to the eye.
• With an alkali or strong acid burn, irrigate the eye for about __________ minutes.
• Bandage the eye with dry dressing.

Chemical Burn

Irrigating the Eye

Thermal Burns of the Eye
• For thermal burns, cover ___________________ eyes with a moist, sterile dressing.
• Transport the patient to a ___________________ center.

Light Burns
• Infrared rays, eclipse light, direct sunlight, and ___________________ burns can damage the eye.
• Cover each eye with a sterile pad and eye shield.
• Transport the patient in a ___________________ position.

Lacerations
• Lacerations to the eyes require very careful repair.
• Never exert _______________________ on or manipulate the eye.
• If part of the eyeball is exposed, apply a _____________________ , sterile dressing.
• Cover the injured eye with a protective metal eye shield.

Laceration of the Eye

Blunt Trauma
Blunt trauma can cause a number of serious injuries:
• A fracture of the orbit (____________________ fracture)
• _____________________ detachment
Blowout Fracture
- May occur from _______________________ trauma caused by a fracture of the orbit
- Bone _______________________ may entrap muscles that control eye movement, causing double vision.

Retinal Detachment
- Often seen in _______________________ injuries
- Produces flashing lights, specks, or _________________ in field of vision
- Needs prompt medical attention

Hyphema
- Bleeding in the _______________________ chamber of the eye
- May seriously impair _________________

Eye Injuries Following a Head Injury
- One pupil _______________________ than the other
- Eyes not moving together or pointing in different directions
- Failure of the eyes to follow _________________
- Bleeding under the conjunctiva
- Protrusion or _________________ of one eye
- Hyphema

Pupil Size and Head Injury
- Variation in _______________________ size may indicate a head injury.

Contact Lenses and Artificial Eyes
- Contact lenses should be kept in the eye unless there is a _______________________ burn.
• Do not attempt to remove a lens from an injured eye.
• Notify the __________________ if the patient has contact lenses.
• If there is no function in an eye, ask if the patient has an ________________ eye.

51 Contact Lens Removal (1 of 2)
• If absolutely necessary, remove a hard contact lens with a small ________________ cup, moistening the end with saline.

52 Contact Lens Removal (2 of 2)
To remove a soft contact lens:
• Place two drops of normal __________________ in eye.
• Gently pinch it between your ________________ thumb and index finger.
• Lift it off surface of eye.

53 Injuries of the Nose
• ________________ trauma is common
• Blunt trauma to the nose can result in fractures and soft-tissue injuries.
• ________________ fluid coming from the nose is indicative of a basal skull fracture.
• Bleeding from soft-tissue injuries of the nose can be controlled with a dressing.

54 Injuries of the Ear
• Ear injuries do not usually __________________ much.
• Place a dressing between the ear and scalp when bandaging the ear.
• For an avulsed ear, wrap the part in a
If a foreign body is lodged in the ear, do not try to manipulate it.

Clear fluid coming from the ear may indicate a ______ fracture.

Outer, Middle, and Inner Ear

Ear Injuries

Facial Fractures

A direct blow to the mouth or nose can result in a facial fracture.

Severe bleeding in the mouth, loose teeth, or movable bone ______ indicate a break.

Fractures around the face and mouth can produce ______.

Severe ______ may obstruct the airway.

Dislodged Teeth

Dislodged teeth should be ________ with the patient in a container with some of the patient’s saliva or with some milk to preserve them.

Blunt Injuries of the Neck

A crushing injury of the neck may involve the larynx or ______.

A fracture to these structures can lead to subcutaneous ______ (air pockets under skin)

Be aware of complete airway obstruction and the need for ________ transport to the hospital.

Subcutaneous Emphysema

Penetrating Injuries of the Neck (1 of 2)
• Can cause severe ____________________.
• The airway, esophagus, and spinal cord can be damaged from penetrating injuries.
• Apply direct pressure to control bleeding.
• Place an _______________________ dressing on a neck wound.

62 **Penetrating Injuries of the Neck (2 of 2)**
• Secure the dressing in place with roller gauze, adding more _______________________ if needed.
• Wrap gauze around and under patient’s _______________________.

63 **Key Points**
• Injuries to the face, neck, and eyes can be ____________________ and bloody
• Do NOT get _______________________ vision
• Always perform a complete assessment and treat injuries in the order of life threats
• CONTROL THE _______________________ FIRST!